

# Miniature Relay W11

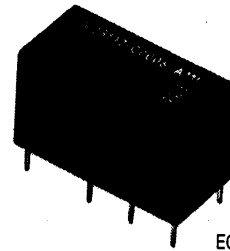
V23102-C0\*\*\*

2 changeover contacts,  
bifurcated

Immersion cleanable

Standard or sensitive

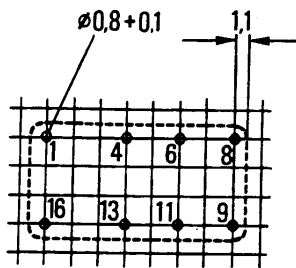
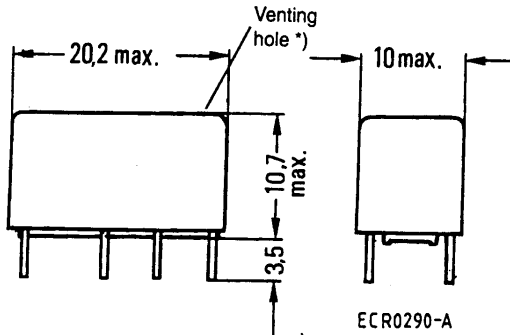
For printed circuit mounting,  
pin arrangement suits 2.54 mm grid  
in acc. with DIN 40801 and DIN 40803, average



ECR3017-D

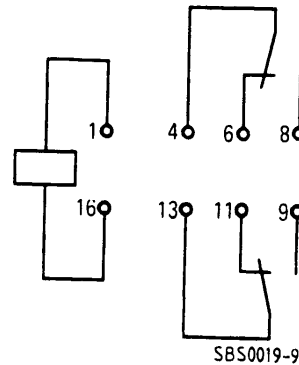
Illustration approx. original size  
Approx. weight 5 g

2

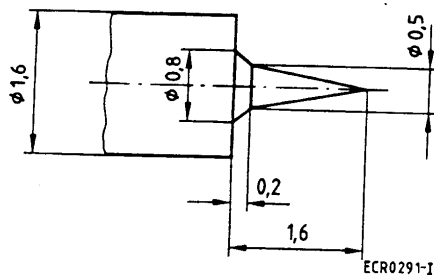


Mounting hole layout  
View onto the terminals

Base terminals



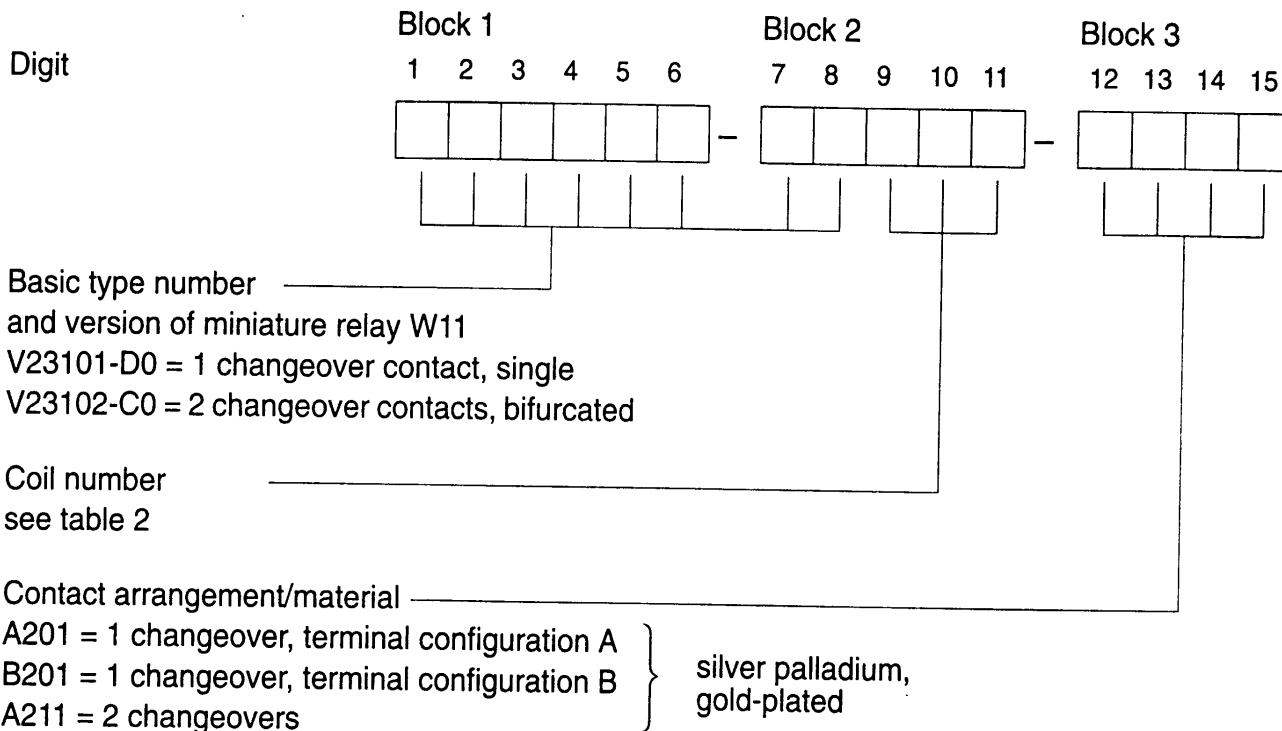
Dimensions of pin



\*) After soldering and cleaning the venting hole is to be punctured by a pin (self-made, dimensions as shown in figure above).

# Miniature Relay W11

## Ordering code



Ordering example: V23101-D0104-B201

Miniature relay W11 with 1 changeover (single), terminal configuration B, coil 6 V nominal voltage, sensitive version, contact material silver/palladium, gold-plated

## SCS – Preferred standard types



V23101-D0003-A201	V23102-C0003-A211
-D0003-B201	-C0006-A211
-D0006-A201	-C0007-A211
-D0006-B201	
-D0007-A201	
-D0007-B201	
-D0106-A201	
-D0107-B201	

# Miniature Relay W11

**Table 1 Characteristics**

Contact arrangement		1 changeover	2 changeovers
<b>Energising side</b>			
Operating voltages	V DC	see table 2	
Power consumption: standard	mW	450	550
sensitive	mW	200	300
Maximum temperature	°C	105	105
Continuous thermal load at 20 °C ambient temperature	W	0.7	0.95
Thermal resistance	K/W	120	85

**Contact side**

Ordering code block 3			
Single contacts, terminal configuration A <sup>1)</sup> terminal configuration B <sup>1)</sup>		A201 B201	- -
Bifurcated contacts		-	A211
Contact material		silver palladium, gold-plated	silver palladium, gold-plated
Contact description		21	21 - 21
Symbols (see also base terminals)			
Maximum switching voltage	V DC V AC	60 125	150 125
Maximum switching current	A	2	2
Maximum power rating			
DC voltage	W	30	30
AC voltage	VA	60	60
Maximum continuous current	A	1	1.25

**General**

Permissible ambient temperature			
standard version	°C	- 25 ... + 55	- 30 ... + 55
sensitive version	°C	- 25 ... + 75	- 30 ... + 75
Operate time			
standard version	ms	approx. 3	approx. 4
sensitive version	ms	approx. 5	approx. 6
Release time	ms	approx. 2	approx. 1
Maximum switching rate	ops./s	20	20
Test voltage			
contact/contact	V AC <sub>rms</sub>	-	1500
contact tip/contact tip	V AC <sub>rms</sub>	500	1000
contact/winding	V AC <sub>rms</sub>	500	1000
Electrical life			
DC voltage 28 V/1 A	operations	approx. 3 × 10 <sup>5</sup>	approx. 5 × 10 <sup>5</sup>
AC voltage 120 V/0.5 A	operations	approx. 1.5 × 10 <sup>5</sup>	approx. 1 × 10 <sup>5</sup>
Mechanical life	operations	approx. 1 × 10 <sup>7</sup>	approx. 1 × 10 <sup>7</sup>

<sup>1)</sup> Terminal configuration A and B for version with 1 changeover only

# Miniature Relay W11

**Table 2 Coil versions**

Nominal voltage V DC	Operating voltage range at 20 °C		Resistance at 20 °C $\Omega$	Coil number Ordering code block 2
	Minimum voltage $U_I$ V DC	Maximum voltage $U_{II}$ V DC		
Standard version with 1 changeover				
5	3.75	7.1	56 ± 6	003
6	4.5	8.6	80 ± 8	004
12	9.0	17.1	320 ± 32	006
24	18.0	34.3	1280 ± 130	007
Standard version with 2 changeovers				
5	3.5	7,5	45 ± 4.5	003
6	4.2	9.2	67 ± 6.7	004
12	8.4	18.7	280 ± 28	006
24	16.8	36.6	1070 ± 10.7	007
Sensitive version with 1 changeover				
5	3.5	12	120 ± 12	103
6	4.2	14	180 ± 18	104
12	8.4	29	700 ± 70	106
24	16.8	58	2800 ± 280	107
Sensitive version with 2 changeovers				
5	3.8	10	82 ± 8.2	103
6	4.6	12	120 ± 12	104
12	9.2	24	480 ± 48	106
24	18.3	48	1920 ± 192	107

The operating voltage limits  $U_I$  and  $U_{II}$  depend on temperature and can be calculated by:

$$U_{I t_u} = k_I \cdot U_{I 20^\circ\text{C}} \text{ and } U_{II t_u} = k_{II} \cdot U_{II 20^\circ\text{C}}$$

$t_u$  = ambient temperature

$U_{I t_u}$  = minimum voltage at ambient temperature  $t_u$

$U_{II t_u}$  = maximum voltage at ambient temperature  $t_u$

$k_I$  and  $k_{II}$  = factors

$t_u$	20 °C	30 °C	40 °C	50 °C	55 °C	60 °C	70 °C	75 °C
$k_I$	1.0	1.04	1.08	1.12	1.14	1.16	1.20	1.22
$k_{II}$	1.0	0.94	0.87	0.80	0.77	0.73	0.64	0.59